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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,039	07/14/2003	Yasushi Koubuchi	501.36127CC3	6056
20457	7590	06/14/2006	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873			PHAM, LONG	
			ART UNIT	PAPER NUMBER
			2814	

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

10/619,039

Applicant(s)

KOUCHUCHI ET AL.

Examiner

Long Pham

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>04/05/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Rejections and/or objections necessitated by the amendments

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 11, 13, 15, and 17 as currently amended, and 12 and 16 as previously presented, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirabayshi (US 5,614,445) in combination with Gocho et al. (US patent 5,498,565), and Taguchi (US patent 4,935,800).

With respect to claims 11, 12, 13, 15, 16, and 17, Hirabayshi in combination with Gocho et al. teach the invention as claimed. **See the contents of the final rejection dated 07/14/05 and rejections dated 01/04/06.**

Hirabayshi teaches forming dummy regions, the dummy regions would inherently have a number, a size, and a layout. Further, it is submitted that the how the surface of the element isolation insulating films are planarized has not been given patentable weight since claims are directed to a device or structure.

Claim Rejections - 35 USC § 103

Claim 14 as previously presented is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirabayshi (US 5,614,445) in combination with Gocho et al. (US patent 5,498,565), and Taguchi (US patent 4,935,800).

See the rejections dated 07/14/05 and 01/04/06.

Response to Arguments

Applicant's arguments with respect to claims 11-17 have been considered but are moot in view of the new ground(s) of rejection.

In response to the applicant's arguments on pages 6 and 7 of the amendment dated 04/04/06, it is submitted that a prior art reference is evaluated by what it suggests to one versed in the art, rather than by its specific disclosure.

In re Bozek, 163 USPQ 545 (CCPA 1969). Further, it is submitted that a reference is considered not only for what it expressly states, but for what it would reasonably have suggested to one of ordinary skill in the art. In re DeLisle, 160 USPQ (CCPA 1969). In this particular case, Hirabayshi teaches a semiconductor device comprising of:

trenches 4',6' formed in a substrate 1,2 and defining active regions 17 and dummy regions 5; and

element isolation insulating films 8,8a buried in said trenches to serve as element isolation regions, wherein said dummy regions are formed at a scribing area 5 and wherein the length of one of the dummy regions is shorter than a distance between external terminals 17a,17b.

Further in response to the arguments in the first full paragraph on page 7 of the amendment dated 04/04/06, it is submitted that the limitation "... dummy regions filled completely with an insulating film or layer..." is not recited in present claims.

In response to the applicant's arguments on page 8 of the amendment dated 04/04/06, it is submitted that Gocho et al. is being relied on only for the teaching of trench isolation filled with planarized insulation to increase capacitance and minimize chip area. Further, it is submitted that the fact that the applicants have a different reason or advantage resulting from doing what the relied prior art suggested doing is not indicative or demonstrative of unobviousness. In Re Kronig 190 USPQ 425,428 (CCPA 1976); In Re Lintner 173 USPQ 560 (CCPA 1972).

In response to the applicant's arguments on pages 9 and 10 of the amendment dated 04/04/06, it is submitted that Taguchi broadly teaches a trench isolation having filled with dielectric to reduce parasitic capacitance. Further, it is noted that one of the definitions of "fill" is "to occupy the whole of". Further, it is submitted that a prior art reference is evaluated by what it suggests to one versed in the art, rather than by its specific disclosure. In re Bozek, 163 USPQ 545 (CCPA

1969). Further, it is submitted that a reference is considered not only for what it expressly states, but for what it would reasonably have suggested to one of ordinary skill in the art. In re DeLisle, 160 USPQ (CCPA 1969). In this particular case, the broad teaching of filling trench isolation of Taguchi would be either partially filling or completely filling to one skilled in the art.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

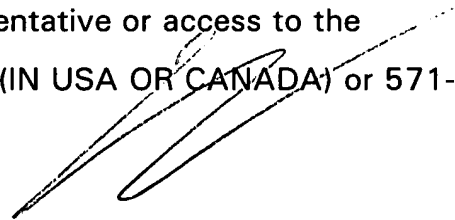
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Long Pham whose telephone number is 571-272-1714. The examiner can normally be reached on Mon-Frid, 10am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2814

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Long Pham

Primary Examiner

Art Unit 2814

LP